Page 270 Answers

35. a) I = 14md2 b) 4md2w c) 14md2w

39. a) wf = 22.62 rad/s (3.6 rev/s) b) 3:1 (new to old) c) work done to pull in arms

41. a) 27.9 rad/s (267 rev/min) b) 2/3 lost (1/3 remaining)

44. 3:1

48. a) w = (mvR)/(I + MR2) b) v =rw v = mvR2/(I + MR2)

50. 1285.93 m/s

51. a)0.148 rad/ s b)0.12345679